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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,714	07/06/2004	David R. McMurtry	120300	7191
25944	7590	01/25/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			DOE, GRACE SC	
			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/500,714

**Applicant(s)**

MCMURTRY, DAVID R.

**Examiner**

Grace SC Doe

**Art Unit**

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/06/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement filed on 07/06/04, regarding reference FR 2 278 034, fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Specification***

3. The specification is objected to because of the following informalities: "re-orientatable" is not recognized word in the dictionary. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language in claim 1 is ambiguous. Please clarify. For purposes of this Action, it is assumed that Applicant intended to state that the relationship between different parts of the sample are known when the sample holder is placed in different orientations on the base. With regards to claim 5, the phrase "by a repeatable mount" is grammatically incorrect and renders the claim ambiguous. Appropriate correction is required. For purposes of this Action, it is assumed that Applicant intended to state that the holder is capable of being repeatedly engaged with the base in different positional orientations.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2, 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Dirksen (DE 198,27,788). Renishaw discloses a dental mount having a base (See figure 2, part 9), re-orientatable holder having a first and second side capable of repeated mounting on the base (See figure 2, part 4). The orientation of the sample with respect to at least two surfaces of the holder may be identified by a plurality of reference

features located on the holder (See figure 2, part 6). The holder is kinematically received on the base by a repeatable mount (See col. 4, lines 11-13). The holder is capable of receiving teeth frameworks (See figure 2, part 1). Dirksen also discloses a dental mount having an operating system capable of functioning when either first and second sides of the holder are repeatably mounted on the base and capable of matching the orientation of the side to the operation stage (See col. 3, lines 47-59). Dirksen further discloses a method of operating on a sample including a base (See figure 2, cylinder supporting holder 9), holder that is adapted on its first and second side to cooperate with the base (See figure 2, part 9), and plurality of reference features capable of supplying data regarding the position of the holder (See figure 2, part 6). The method discloses locating the holder on the base (See col. 3, lines 2-6). Providing an operating system so that a first operation is made when the first side of the holder cooperates with the base (and a second operation is made when the second side of the holder cooperates with the base (See col. 3, lines 30-37). Specifically, Dirksen discloses an operation of photo-determination of the angle of rotation of the jaw model. Matching the two operations using the data provided by the reference features (See col. 3, lines 47-59). Specifically, Dirksen discloses utilizing coordinate data determined from indicia 9 and the angle of rotation to calculate depth image. Dirksen further teaches placing the holder kinematically on the base (See col. 3, lines 2-6). Placing the holder on its first side (See col. 3, lines 2-6; col. 3, lines 30-37) and operating on a first stage of a sample (See col. 3, lines 30-37). Placing the holder on its second side (See col. 3, lines 2-6; col. 3, lines 30-37) and operating on a second stage of a sample (See col. 3, lines 30-37).

Matching the operations of the first and second stages by the relationship between the first and second sides (See col. 3, lines 47-59). Specifically, Dirksen teaches photo-analysis of the entire jaw model located when placed on the holder (See col. 3, lines 47-59). The resultant coordinate data determined from indicia 9 and the angle of rotation are used to calculate depth image.

8. Claims 1-2, 5-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Wells (EP 1,142,541). Wells discloses a dental mount having a base (See figure 1A, part 12), re-orientatable holder having a first and second side capable of repeated mounting on the base (See figure 1A, part 10; col. 3, lines 56-57). The orientation of the sample with respect to at least two surfaces of the holder may be identified by a plurality of reference features located on the holder (See figure 1A, part 14; col. 3, lines 6-9). The holder is kinematically received on the base by a repeatable mount (See col. 4, lines 11-13). The holder is capable of receiving teeth frameworks (See col. 1, lines 1-7). Wells also discloses a dental mount having an operating system capable of functioning when either first and second sides of the holder are repeatably mounted on the base and capable of matching the orientation of the side to the operation stage (See col. 1, lines 8-10, 17-19).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Dirksen (DE 198,27,788) or Wells (EP 1,142,541). Dirksen and Wells fail to disclose that the reference features are located on a reference block having faces. It would be an obvious matter of choice to one of ordinary skill in the art to locate the reference features on an adjoining reference block in order to provide for greater holder workspace. The language in addressing "machined" is characterized as product by process having little patentable weight on the claim. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Dirksen also fails to expressly disclose reference features shaped as protruding spheres or rods. Dirksen, however, does disclose at least three circular reference features (See figure 1, part 6). Therefore it would be an obvious matter of choice to one of ordinary skill in the art to design references features shaped as rods or spheres for purposes of aesthetics and to efficiently utilize holder workspace.

### ***Double Patenting***

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-9 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2-6, 8, and 11 of copending Application No. 09/822,423. Although the conflicting claims are not identical, they are not patentably distinct from each other because as to claim 1, '423 discloses a base, mount, holder, and plurality of locators. '423 claims fail to explicitly disclose a reorientatable holder. '423, however, discloses a plurality of locators suggesting the ability of reorientation. Therefore it would be an obvious matter of choice to one of ordinary skill in the art at the time of the invention to incorporate a reorientatable holder in order to facilitate assembly. With regards to claim 3, '423, discussed above, fails to explicitly disclose a reference block. It would be an obvious matter of choice to one of



ordinary skill in the art to locate the reference features on an adjoining reference block in order to provide for greater holder workspace. With respect to claims 8-9, '423, discussed above, fails to explicitly disclose performing an operation on one portion of the holder, performing an operation on the second portion, and then matching the operations. '423 does disclose an operation for measuring utilizing locators. Therefore it would be obvious to one of ordinary skill in the art at the time of the invention to utilize the locators as a means of combining data from the measuring operation in order to determine an overall calculation.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. US 6,224,371 (De Luca) discloses a dental manufacturing device having a base, re-orientatable holder, and a reference feature.

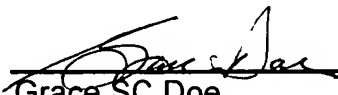
B. US Patent Publication 2001/0053510 (Ranalli) discloses a dental design device having a base, re-orientatable holder, reference features, and method for use.

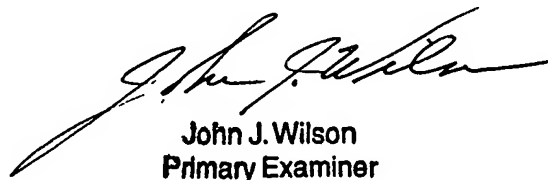
C. US 4,205,445 (Tzeng) discloses a dental surveyor having a base, re-orientatable holder, and reference features.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grace SC Doe whose telephone number is (571) 272-2831. The examiner can normally be reached on Monday – Thursday from 8:00am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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John J. Wilson  
Primary Examiner